

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

c/s F.
File
RECEIVED C-122

JUN 13 1983

Type Test [X] Initial [] Annual [] Special				Test Date 4/12/83		O. C. D. ARTESIA, OFFICE	
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company			
Pool Pecos Slope <i>AB</i>				Formation <i>AB</i>		Unit	
Completion Date 4/18/82		Total Depth 4153.0'		Plug Back TD 4129.0'		Elevation 3766.0'	
Farm or Lease Name Albitus "TH" Fed							
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4153.0'	Perforations: From 3624.0' To 3806.0'		Well No. 1	
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3640.0'	Perforations: From 0.0' To 0.0'		Unit Sec Twp Rge <i>AB</i> 21 7S 25E	
Type Well Single				Packer Set At 3640.0'		County Chaves	
Producing Thru Tubing		Resv. Temp. °F 90 @ 3581'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.	
State New Mexico							
L 3640.0'	H 3640.0'	Gg .652	%CO2 .03	%N2 7.71	%H2S 0.00	Prover 0.000"	Meter Run 2.000"
Taps Flange							

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow
NO	Prover Orifice Size X Size	Press. psig	Diff. hw	Temp. °F	Press. psig	Temp. °F	Press. psig	Temp. °F	
SI	0.000 X 0.000	0	0.0	0	972	0	0	0	0 hrs.
1.	2.067 X .875	115	13.0	60	920	62	0	0	24 hrs.
2.	2.067 X .875	145	24.0	60	860	62	0	0	24 hrs.
3.	2.067 X .875	160	36.0	60	790	62	0	0	24 hrs.
4.	2.067 X .875	135	70.0	57	680	62	0	0	24 hrs.
5.	0.000 X 0.000	0	0.0	0	0	0	0	0	0 hrs.

RATE OF FLOW CALCULATIONS

NO	Coefficient (24 HOUR)	√hwPm	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	3.729	40.82	128.20	1.000	1.238	1.009	190
2.	3.729	61.62	158.20	1.000	1.238	1.012	288
3.	3.729	78.96	173.20	1.000	1.238	1.013	369
4.	3.729	101.85	148.20	1.003	1.238	1.011	477
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

NO	Pr	Temp. °R	Tr	Z	Gas Liquid Hydrocarbon Ratio	Dry	Mcf/bbl.
1.	.20	520	1.48	.982	A.P.I. Gravity of Liquid Hydrocarbons	0.000	Deg.
2.	.24	520	1.48	.977	Specific Gravity Separator Gas	.652	xxxxxxxxxxxx
3.	.26	520	1.48	.975	Specific Gravity Flowing Fluid	xxxxxx	.652
4.	.23	517	1.47	.978	Critical Pressure	657.4 PSIA	657.4 PSIA
5.	0.00	0	0.00	0.000	Critical Temperature	351.5°R	351.5°R

Pc	985.2	Pc ²	970.6								
NO	Pt ²	Pw	Pw ²	Pc ² -Pw ² (1)	$\frac{Pc^2}{Pc^2-Pw^2} = \frac{3.0008}{}$	(2)	$\left[\frac{Pc^2}{Pc^2-Pw^2} \right]^n = \frac{1.8540}{}$				
1.	870.9	933.4	871.3	99.3							
2.	762.5	873.8	763.5	207.1							
3.	645.1	804.2	646.8	323.8							
4.	480.5	695.2	483.3	487.3							
5.	0.0	0.0	0.0	0.0							

ROF = 0

$\left[\frac{Pc^2}{Pc^2-Pw^2} \right]^n = \frac{685 \text{ Mcfd}}{}$

$$ROF = Q \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 685 \text{ Mcfd}$$

Absolute Open Flow 685 Mcfd @ 15.025 Angle of Slope, 0 29 Slope, n .562
Remarks:

Approved By:	Conducted By: David Weaver	Calculated By: Andie Carpenter	Checked By:
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WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-122D

Adopted 9-1-65

DATE 6/10/83

COMPANY Yates Petroleum Corporation LEASE Albitus "TH" Fed WELL NO. 1

LOCATION: Unit H Section 21 Township 7S Range 25E

L 3640.0 H 3640.0 L/H 1.000 G .652 X002 .03 XN2 7.71 XH2S 0.00

d 1.995 Fr .017777 GH 2373.3 Pcr 657.4 Tcr 351.5

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.190	.288	.369	.477	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	550.0	550.0	550.0	550.0	0.0
4 T=(Tw+Ts)/2	536.0	536.0	536.0	536.0	0.0
5 Z(Est.)	.869	.876	.885	.900	0.000
6 TZ	465.5	469.6	474.4	482.3	0.0
7 GH/TZ	5.098	5.054	5.002	4.921	0.000
8 e ⁻³ (Table XIV)	1.210	1.209	1.206	1.203	0.000
9 1-e ⁻³ (Table XIV)	.174	.173	.171	.168	0.000
10 Pt	933.2	873.2	803.2	693.2	0.0
11 Pt ² /1000	870.9	762.5	645.1	480.5	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.283	8.348	8.434	8.578	0.000
14 FcQm	1.576	2.403	3.116	4.092	0.000
15 L/H(FcQm) ²	2.482	5.775	9.707	16.741	0.000
16 Fw=L/H(FcQm) ² (1-e ⁻³)	.432	.997	1.660	2.820	0.000
17 Pw ² =Pt ² +Fw	871.3	763.5	646.8	483.3	0.0
18 Ps ² =e ⁻³ Pw ²	1054.7	922.8	780.2	581.2	0.0
19 Ps	1027.0	960.6	883.3	762.4	0.0
20 P=(Pt+Ps)/2	980.1	916.9	843.3	727.8	0.0
21 Pr=(P/Pcr)	1.49	1.39	1.28	1.11	0.00
22 Tr=(T/Tcr)	1.52	1.52	1.52	1.52	0.00
23 Z(Table XI)	.869	.876	.885	.900	0.000

Company	Yates Petroleum Corporation
Well	Albitus "TH" Fed No. 1
Location	H, 21-7S-25E
County	Chaves
Date	6/10/83

